

CLAIM AMENDMENTS

1. (Previously Amended) A replication deficient adenoviral vector comprising a nucleic acid sequence encoding pigment epithelium-derived factor (PEDF) or a therapeutic fragment thereof, wherein the nucleic acid sequence is operably linked to regulatory sequences necessary for expression of PEDF or a therapeutic fragment thereof and wherein the adenoviral vector is lacking all or part of the E1 region and all or part of the E4 region.

2.-3. (Cancelled)

C 4. (Previously Amended) The adenoviral vector of claim 1, wherein the adenoviral vector is lacking all of the E1 region.

5. (Previously Amended) The adenoviral vector of claim 1, wherein the adenoviral vector is lacking all or part of the E1a region and is lacking all or part of the E1b region.

6. (Previously Amended) The adenoviral vector of claim 5, wherein the adenoviral vector is lacking all of the E4 region.

8. (Previously Amended) The adenoviral vector of claim 6, wherein the adenoviral vector is lacking all or part of the E3 region.

9. (Previously Amended) The adenoviral vector of claim 1, wherein the adenoviral vector is lacking all or part of the E2 region.

10. (Cancelled)

11. (Previously Amended) The adenoviral vector of claim 8, wherein the adenoviral vector comprises a nucleic acid sequence encoding a cis-acting factor, wherein the cis-acting factor modulates the expression of the nucleic acid sequence encoding PEDF or a therapeutic fragment thereof.

12. (Previously Amended) The adenoviral vector of claim 11, wherein the cis-acting factor is a MAR sequence or a LCR sequence.

13. (Previously Amended) The adenoviral vector of claim 8, wherein the adenoviral vector further comprises a nucleic acid sequence encoding a trans-acting factor, wherein the

trans-acting factor modulates the expression of the nucleic acid sequence encoding PEDF or a therapeutic fragment thereof, and wherein the nucleic acid sequence encoding a trans-acting factor does not encode an adenoviral E4 region gene product.

14. (Previously Amended) The adenoviral vector of claim 13, wherein the trans-acting factor is selected from the group consisting of HSV ICP0, Ad pTP, CMV UL84, VZV-ORF61, PRV-EP0, CMV-E1, CMV-IE2, CMV-IE86, HIV-tat, HTLV-tax, HBV-X, and AAV-Rep 78.

C 15. (Previously Amended) The adenoviral vector of claim 1, wherein the regulatory sequences comprise a promoter selected from the group consisting of a CMV promoter, an RSV promoter, an adeno-associated virus p5 promoter, a Lap2 promoter, an EF1 α promoter, and a β -actin promoter.

16. (Previously Amended) The adenoviral vector of claim 15, wherein the regulatory sequences comprise an RSV promoter.

17. (Previously Amended) The adenoviral vector of claim 1, wherein the regulatory sequences comprise an inducible promoter.

18. (Previously Amended) The adenoviral vector of claim 1, wherein the adenoviral vector comprises a chimeric coat protein comprising a nonnative amino acid sequence,
wherein the chimeric virus coat protein directs entry into cells of a vector comprising the chimeric virus coat protein that is more efficient than entry into cells of a vector that is identical except for comprising a wild-type virus coat protein rather than the chimeric virus protein, and
wherein the chimeric virus coat protein binds an endogenous binding site present on the cell surface not recognized by a vector comprising a wild-type virus coat protein.

19. (Previously Amended) The adenoviral vector of claim 18, wherein the nonnative amino acid sequence is inserted into or in place of an internal coat protein sequence.

20. (Previously Amended) The adenoviral vector of claim 1, wherein the adenoviral vector comprises a chimeric virus coat protein comprising a nonnative amino acid sequence inserted into or in place of an internal coat protein sequence,
wherein the chimeric virus coat protein efficiently binds to a broader range of eukaryotic cells than a wild-type virus coat protein and wherein the chimeric virus coat protein is not selective for a specific type of eukaryotic cell.

21. (Previously Amended) The adenoviral vector of claim 1 further comprising one or more additional nucleic acid sequences encoding therapeutic substances other than PEDF or a therapeutic fragment thereof.

22. (Previously Amended) The adenoviral vector of claim 21, wherein one or more additional nucleic acid sequences encodes ciliary neurotrophic factor (CNTF).

23. (Previously Amended) The adenoviral vector of claim 21, wherein one or more additional nucleic acid sequences encodes an atonal-associated peptide.

24. (Previously Amended) The adenoviral vector of claim 21, wherein one or more additional nucleic acid sequences encodes an anti-angiogenic substance.

25. (Previously Amended) The adenoviral vector of claim 24, wherein the anti-angiogenic substance is a soluble receptor specific for an angiogenic factor.

26. (Previously Amended) The adenoviral vector of claim 25, wherein the soluble receptor specific for an angiogenic factor is a soluble VEGF-R1 receptor.

27. (Previously Amended) The adenoviral vector of claim 21, wherein the therapeutic substances other than PEDF or a therapeutic fragment thereof are linked to an endoplasmic reticulum localization signal peptide.

28.-37. (Cancelled)

38. (New) The adenoviral vector of claim 15, wherein the regulatory sequences comprise a CMV promoter.

39. (New) A replication deficient adenoviral vector comprising an adenoviral genome lacking all or part of the E1 region, all or part of the E3 region, and all or part of the E4 region and comprising a nucleic acid sequence encoding pigment epithelium-derived factor (PEDF) or a therapeutic fragment thereof, wherein the nucleic acid sequence is operably linked to regulatory sequences necessary for expression of PEDF or a therapeutic fragment thereof.

40. (New) The adenoviral vector of claim 39, wherein the adenoviral vector comprises an adenoviral genome lacking all of the E1 region.

41. (New) The adenoviral vector of claim 40, wherein the adenoviral vector comprises an adenoviral genome lacking all of the E4 region.

42. (New) The adenoviral vector of claim 39, wherein the adenoviral vector comprises an adenoviral genome further lacking all or part of the E2 region.

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43. (New) The adenoviral vector of claim 41, wherein the nucleic acid sequence encodes PEDF.

44. (New) The adenoviral vector of claim 43, wherein the regulatory sequences comprise a CMV promoter.
